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OCEANOGRAPHIC SERVICES, INC.

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November 12, 1973

National Aeronautics and Space
Administration
Goddard Space Flight Center
Greenbelt, Maryland 20771

Subject: Progress Report No. 5 (Type I)

Gentlemen:

Oceanographic Services, Inc. (OSI) is pleased to submit Progress Report Number 5 covering the period August 2 to November 2, 1973 under contract NAS-5-21877.

- A. Title: Acquisition and Analysis of Coastal Ground-Truth Data for Correlation with ERTS-1 Imagery
- B. Principal Investigator: Dr. William A. Anikouchine, GSFC ID - PR533.
- C. Difficulties and Problems This Period:

The correlation of ground truth data with ERTS-1 data has been hampered by delays in delivering CCT's of scenes covering our ground truth cruises. At this moment, it appears that the time required to prepare the first draft of the final project report will exceed the project schedule by 30 days. Approval of a 30 day extension of contract NAS-5-21877 is requested herewith.

D. Accomplishments:

- 1. An outline of the final report was prepared and submitted for approval by the project technical monitor on 14 September 1973.
- 2. Ground-truth cruises were made on:
 - 23 August 1973 Santa Monica Bay
 - 24 August 1973 Santa Barbara Channel
- 3. Digital density slicing of received CCT scenes has been undertaken. Computer printer output is processed manually to generate density slice graphics. A Calcomp contouring routine is being introduced to minimize manual drafting of computer output.

(E74-10023) ACQUISITION AND ANALYSIS OF
COASTAL GROUND-TRUTH DATA FOR CORRELATION
WITH ERTS-1 IMAGERY Progress Report, 2
Aug. - 2 Nov. 1973 (Oceanographic
Services, Inc.) 5 p HC \$3.00 CSCL 08J

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4. A summarization of project progress was presented to the ERTS Marine Science Panel at Goddard Space Flight Center on 26 October 1973.

E. Significant Results:

1. Radiance profiles drawn along cruise tracks have been examined for use in correlating digital radiance levels with ground truth data. Preliminary examination results are encouraging. Adding weighted levels from the 4 MSS bands appears to enhance specular surface reflections while rendering sensor noise white. Comparing each band signature to the added specular signature ought to enhance non-specular effects caused by ocean turbidity.
2. Preliminary examination of radiance profiles and ground truth turbidity measurements revealed substantial correlation.

F. Projected Accomplishments:

1. Continued examination of digital enhancement of CCT's will be conducted as they arrive.
2. Correlation of enhanced digital profiles with ground truth data will be completed.
3. The draft of the final project report will be completed.

G. Published Material: None

H. Additional Investigative Efforts: None recommended at this time.

I. Changes in Standing Orders: None

J. Image Description Forms: List under preparation.

K. Data Request Forms: The following material was ordered during the reporting period:

DATE	OBSERVATION IDENTIFIER	CENTER POINT COORDINATES	SENSOR BAND	PRODUCT FORMAT	NUMBER OF COPIES
6 August 1973	1108-18014	34.29N 118.27W	M	7	1
6 August 1973	1127-18073	34.31N 119.54W	M	7	1
6 August 1973	1129-18181	37.25N 121.50W	M	7	1

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DATE	OBSERVATION IDENTIFIER	CENTER POINT COORDINATES	SENSOR BAND	PRODUCT FORMAT	NUMBER OF COPIES
6 August 1973	1234-18021	34.33N 118.37W	M	7	1
6 August 1973	1237-18183	37.27N 122.00W	M	7	1
13 August 1973	1252-18021	34.38N 118.36W	M	7	1
13 August 1973	1253-18075	34.39N 120.03W	M	7	1
13 August 1973	1255-18190	36.05N 122.29W	M	M	1
13 August 1973	1255-18190	36.05N 122.29W	M	S	1
13 August 1973	1270-18021	34.40N 118.38W	M	M	1
13 August 1973	1271-18075	34.40N 120.03W	M	7	1
13 August 1973	1288-18020	34.48N 118.36W	M	M	1
13 August 1973	1288-18020	34.48N 118.36W	M	S	1
13 August 1973	1288-18020	34.48N 118.36W	M	T	1
13 August 1973	1288-18022	33.21N 119.02W	M	M	1
13 August 1973	1288-18022	33.21N 119.02W	M	S	1
13 August 1973	1288-18022	33.21N 119.02W	M	T	1
20 August 1973	1273-18183	37.36N 122.01W	M	7	1
20 August 1973	1273-18185	36.11N 122.28W	M	7	1
20 August 1973	1289-18014	34.38N 119.57W	M	7	1
20 August 1973	1291-18182	37.31N 122.01W	M	7	1
20 August 1973	1291-18184	36.05N 122.29W	M	7	1
20 August 1973	1307-18073	34.43N 120.01W	M	7	1

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DATE	OBSERVATION IDENTIFIER	CENTER POINT COORDINATES	SENSOR BAND	PRODUCT FORMAT	NUMBER OF COPIES
23 August 1973	1235-18075	34.36N 120.02W	M	S	1
23 August 1973	1253-18075	34.40N 120.03W	M	S	1
23 August 1973	1271-18075	34.41N 119.56W	M	S	1
23 August 1973	1289-18074	34.40N 120.04W	M	S	1
23 August 1973	1307-18073				
23 August 1973	1037-18064	34.34N 119.50W	M	S	1
23 August 1973	1073-18064	34.40N 119.45W	M	S	1
23 August 1973	1109-18073	34.25N 119.56W	M	S	1
23 August 1973	1127-18073	34.32N 119.55W	M	S	1
23 August 1973	1163-18072	34.30N 119.51W	M	S	1
23 August 1973	1180-18013	34.42N 118.20W	M	S	1
23 August 1973	1180-18015	33.16N 118.46W	M	S	1
23 August 1973	1181-18071	34.40N 119.47W	M	S	1
23 August 1973	1217-18074	34.38N 119.55W	M	S	1
23 August 1973	1234-18021	34.34N 118.37W	M	S	1
4 September 1973	1289-18074	34.38N 119.57W	M	7	1
19 September 1973	1306-18015	34.42N 118.37W	M	M	1
19 September 1973	1306-18021	33.16N 119.03W	M	M	1
19 September 1973	1309-18181	37.35N 122.00W	M	M	1

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DATE	OBSERVATION IDENTIFIER	CENTER POINT COORDINATES	SENSOR BAND	PRODUCT FORMAT	NUMBER OF COPIES
19 September 1973	1309-18183	36.09N 122.28W	M	M	1
19 September 1973	1325-18072	34.38N 120.03W	M	M	1
19 September 1973	1342-18012	34.37N 118.38W	M	M	1
19 September 1973	1342-18015	33.12N 119.03W	M	M	1
19 September 1973	1345-18174	37.25N 122.02W	M	M	1
19 September 1973	1345-18181	35.59N 122.29W	M	M	1
19 September 1973	1306-18015	34.42N 118.37W	M	S	1
19 September 1973	1306-18021	33.16N 119.03W	M	S	1
19 September 1973	1309-18181	37.35N 122.00W	M	S	1
19 September 1973	1309-18183	36.09N 122.28W	M	S	1
19 September 1973	1325-18072	34.38N 120.03W	M	S	1
19 September 1973	1342-18012	34.37N 118.38W	M	S	1
19 September 1973	1342-18015	33.12N 119.03W	M	S	1
19 September 1973	1345-18174	37.25N 122.02W	M	S	1
19 September 1973	1345-18181	35.59N 122.29W	M	S	1

L. Additional Funds Required: None

Sincerely,

William A. Anikouchine

William A. Anikouchine, PhD
Senior Oceanographer

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